

2004 Traffic Engineering Conference for Operations and Safety- General Discussion



North Carolina
Department of Transportation

GENERAL DISCUSSION TOPICS

- 1) Organizational Changes**
- 2) Technology in Work Zones**
- 3) Work Zone Sign Sheeting Changes**
- 4) Speed Limit Reduction Techniques and Criteria**
- 5) “Top 10” TIP List**
- 6) Innovative Pavement Marking Products**

TRAFFIC CONTROL, PAVEMENT MARKING,



&
DELINEATION
UNIT

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Highway Administrator

Steve DeWitt
Director of Construction

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Project Services



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*Stuart Bourne
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Traffic Control Unit

*Lawrence Gettier, PE
Project Engineer*

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*Steve Kite, PE
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*Meredith McDiarmid, PE
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I. Organizational Changes-

Traffic Control restaffed to Constuction Unit under Steve DeWitt....same staff....same mission...same level of coordination with the TEB

- **Traffic Control Unit Head**

- Stuart Bourne, PE

- **Project Engineers**

- Steve Kite, PE

- Lawrence Gettier, PE

- Joseph Ishak, PE

- Meredith McDiarmid, PE



Technology in Work Zones

‘Real Time’ Travel Information

‘Late Lane’ Merge Technology

Automated Speed Enforcement

Technology in Work Zones

The targeted 'Real Time' travel information SMARTZONES are below and can be found on the new Traffic Control website at <http://www.doh.dot.state.nc.us/construction/tc>

I-3605: Div. 4 (Oct. 04 Letting)

U-3101C/D: Div. 5 (Nov. 04 Letting)

I-2808: Div. 11 (Feb. 05 Letting)

I-2810: Div. 5 (October 05 Letting)

U-2826A: Div. 9 (Jan. 06 Letting)

Technology in Work Zones

Other technologies are going to be deployed soon.....stay tuned for

- 1) Dynamic Late Lane Merge with an “Electronic Traffic Cop”**
- 2) Automated Speed Enforcement**

Smart Work Zones

- ..Man haven't we come a LONG ways since then!!



Work Zone Sign Sheeting Changes

Effective January 2005, all work zone signs will have Type VII or Higher Fluorescent Orange Sheeting

All Stationary Work Zone Signs will be returned to the 48" x 48" size

The "Work Zone" legend will be replaced with "Road Work" and the sign distances will be revised



Speeding in Work Zones

- What's New??
- What other techniques are being explored?



Devices- Drums



Devices-Changeable Message Signs



Devices- Changeable Message Signs



Speed Limit Reduction Warrants are being Revised

- There is a 'criteria' that establishes speed reductions for motorist safety. These reductions are established when the work zone can not be designed within the existing speed limit parameters. These reductions are to be signed with regulatory "Black on White" Speed Limit Signing.
- Now, there will be a separate criteria that establishes speed reductions for worker safety. These will be temporary speed reductions utilizing Changeable Message Signs accompanied by a written ordinance

‘The Top 10 List’

- We are now providing the management group our input on the 10 most important TIP projects based on transportation need
- Each month the Traffic Control Unit and the Traffic Engineering Branch will discuss this list of projects.
- Currently, we are looking at projects as they enter the 24 month Let List.

Innovative Pavement Marking Products



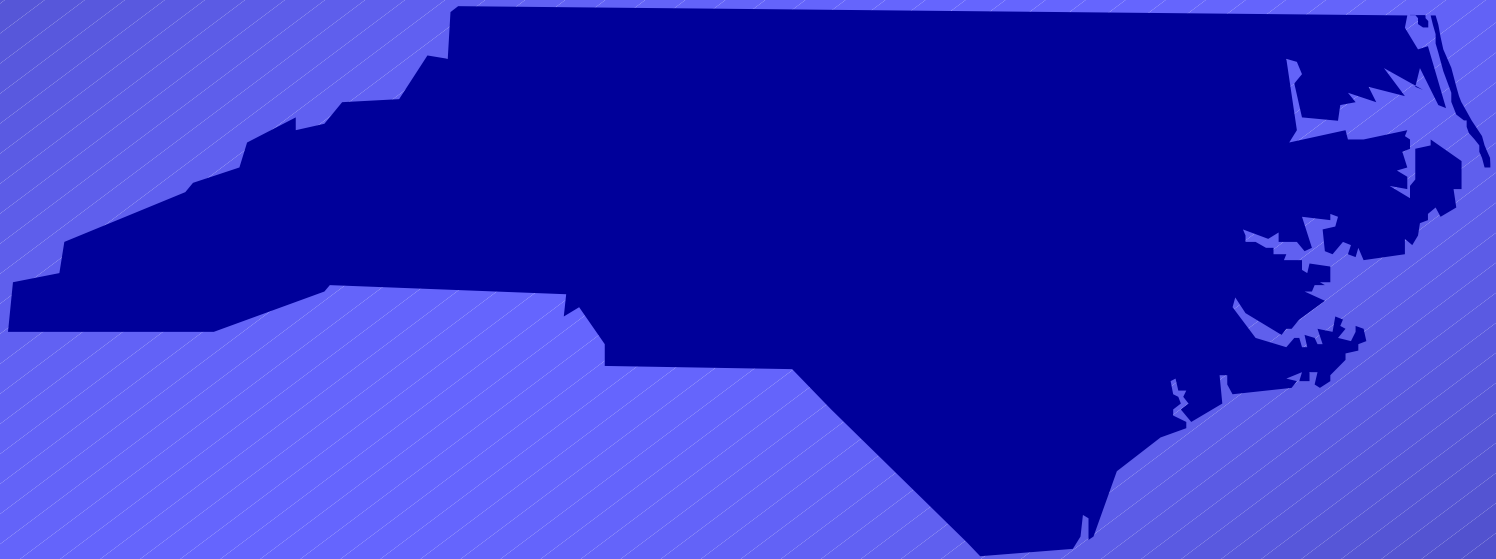
1) Wet Night Retroreflective Markings

2) Polyurea Markings for Concrete and Asphalt

3) 'Rumble Stripes'

4) Non-Destructive Line Removal Specification

Maintaining Credibility





Plan Your Work



Speeding in Work Zones

- Guidelines & Policies for use of Law Enforcement

- * Traffic Control Project Engineer
- * Division Construction Engineers
- * DMV Captains



\$ 250 Speeding Penalty in Work Zones

The Revised Law

How it Works

December 9, 1999

Legislation

House Bill 303 revised General Statute 20-141(j2) **effective December 1, 1999** to read:

“A person who drives a motor vehicle in a highway work zone at a speed greater than the speed limit set and posted under this section shall be required to pay a penalty of **two hundred fifty dollars (\$250.00)**. This penalty shall be imposed in addition to those penalties established in this Chapter. A “highway work zone” is the area between the first sign that informs motorists of the existence of a work zone on a highway and the last sign that informs motorists of the end of the work zone. This subsection applies only if a sign posted at the beginning of the highway work zone states the penalty for speeding in the work zone. The Secretary shall ensure that work zone shall only be posted with penalty signs if the **Secretary determines, after engineering review, that the posting is necessary to ensure the safety of the traveling public due to a hazardous condition.**

A law enforcement officer issuing a citation for a violation of this section while in a highway work zone shall indicate the vehicle speed and speed limit posted in the work zone. Upon an individual's conviction of a violation of this section while in a highway work zone, the clerk of court shall report that the vehicle was in a work zone at the time of the violation, the vehicle speed, and the speed limit of the work zone to the Division of Motor Vehicles.

Process

In December of 1997 the Secretary of NCDOT approved the attached “engineering review” process that requires the State Traffic Engineer to establish an ordinance for each “\$250 speeding penalty” zone. Area Traffic Engineers, the Traffic Control Section and Division Construction personnel have been

working together to use this penalty to our best advantage. Any citations written in work zones without ordinances will not be prosecuted in court.

Implementation

This penalty can only practically be applied to full and partial control-of-access roadways as the law is currently written.

Signs need to be changed to reflect the current law. Signs have been fabricated and are being shipped from Prison Enterprises today, tomorrow and Monday to your Traffic Services Shops for use on the projects shown on your handouts. An estimate of the number of signs needed was made by the Traffic Control Section. If you need more signs please advise Jim Kellenberger by phone or e-mail.

Please have your contractors replace existing speeding penalty signs with the new ones by **January 3, 2000** if at all possible. If you have a project that is not on the attached list that you feel needs a “Speeding Penalty” ordinance please contact the Traffic Control Section and we will review the project location with you and the ATE. All “Speeding Penalty” should be removed from non-ordinanced locations as soon as possible.

Modifications have been made to the “Advance Warning” sign standards to insure better installation practices and smaller overall sign size.

Enforcement

The Traffic Control Section is working with Division personnel and DMV to identify the locations for increased safety surveillance. The Division Engineer is the primary contact for this increased presence in the identified project locations.